DOCUMENT RESUME

ED 131 336 95 CE 009 061

AUTHOR Dittman, Jeanette K.
TITLE Sex-Role Perceptions of North Dakota Vocational Educators. Final Report. Research Series No. 38.
INSTITUTION North Dakota State Univ., Fargo. Coll. of Home Economics.
SPONS AGENCY North Dakota State Board for Vocational Education, Bismarck. Research Coordinating Unit.; Office of Education (DHEW), Washington, D.C.
REPORT NO VT-103-393
PUB DATE Jun 76
NOTE 54p.

EDRS PRICE MF-$0.83 HC-$3.50 Plus Postage.
DESCRIPTORS Administrator Attitudes; Counselor Attitudes; Sex Differences; *Sex Role; *Sex Stereotypes; Surveys; Teacher Attitudes; *Vocational Education
IDENTIFIERS North Dakota

ABSTRACT

The assessment of sex-role perceptions of vocational educators was planned as a means of addressing the issues of sexism and sex-role stereotyping in vocational education in North Dakota. The stratified random sample consisted of 396 vocational teachers, administrators, and counselors. Bem's Sex-Role Inventory was used to assess the subjects' sex-role perceptions. The testing of the hypotheses resulted in the following conclusions: (1) Vocational educators were highly consistent in the sex-role perceptions; subjects in all subsamples perceived males as masculine-typed and females as feminine-typed, suggesting predominantly stereotyped views, (2) female subjects viewed themselves as being significantly less sex-typed than did male subjects, (3) both male and female subjects described males and females as more significantly sex-typed than they perceived themselves to be, (4) androgynous subjects perceived a significantly smaller difference between males and females than did more sex-typed subjects, and (5) there appeared to be a tempering of the exaggerations of masculinity and femininity by androgynous individuals. In addition to a description of the procedures and presentation of the results, the report presents a review of the literature and a bibliography. The Bem Sex-Role Inventory is appended. (Author/NJ)

****
* Documents acquired by ERIC include many informal unpublished *
* materials not available from other sources. ERIC makes every effort *
* to obtain the best copy available. Nevertheless, items of marginal *
* reproducibility are often encountered and this affects the quality *
* of the microfiche and hardcopy reproductions ERIC makes available *
* via the ERIC Document Reproduction Service (EDRS). EDRS is not *
* responsible for the quality of the original document. Reproductions *
* supplied by EDRS are the best that can be made from the original. *
****

ED131336

FINAL REPORT

SEX-ROLE PERCEPTIONS OF NORTH DAKOTA VOCATIONAL EDUCATORS

(Research Series No. 38)

Jennette K. Dittman

Department of Home Economics Education
College of Home Economics
North Dakota State University

Fargo, North Dakota 58102

June 1976

in cooperation with

NORTH DAKOTA STATE BOARD

FOR VOCATIONAL EDUCATION

Bismarck, North Dakota

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

CE 009 061

VT 103 393

2

THE STATE BOARD FOR VOCATIONAL EDUCATION

900 East Boulevard
Bismarck, North Dakota 58505

CARROL BURCHINAL, Director
LARRY SELLAND, Assistant Director
REUBEN GUENTHNER, Assistant Director

NORTH DAKOTA RESEARCH COORDINATING UNIT

DON ESHELBY, Director

The research reported herein was performed pursuant to a grant with the Office of Education, U.S. Department of Health, Education, and Welfare. Contractors undertaking such projects under Government sponsorship are encouraged to express freely their professional judgment in the conduct of the project. Points of view or opinions stated do not, therefore, necessarily represent official Office of Education position or policy.

united printing

ABSTRACT

The purpose of this study was to assess the sex-role perceptions of vocational educators and was planned as a means of addressing the issues of sexism and sex-role stereotyping in vocational education in North Dakota. The stratified random sample consisted of 396 vocational educators. The Bem Sex-Role Inventory was used to assess the subjects' sex-role perceptions. The testing of the hypotheses resulted in the following conclusions: (1) vocational educators were highly consistent in their sex-role perceptions of others. Subjects in all sub-samples perceived males as masculine typed and females as feminine typed or near feminine suggesting predominantly stereotyped views of others' sex-roles; (2) female subjects viewed themselves as being significantly less sex-typed than did male subjects; (3) both male and female subjects described males and females as being significantly more sex-typed than they perceived themselves to be; (4) androgynous subjects perceived a significantly smaller difference between males and females than did more sex-typed subjects; and (5) there appears to be a tempering of the exaggerations of masculinity and femininity by androgynous individuals. However, androgynous persons are continuing to incorporate into their personalities those traits valued for their respective sex along with those valued for the other sex.

PREFACE

The North Dakota Research Coordinating Unit supports numerous projects which promote vocational education research in North Dakota. This report is the summary of a research project designed to assess the sex-role perceptions of vocational educators. The project was planned as a means of addressing the issues of sex discrimination and sex-role stereotyping in North Dakota vocational education.

Additional copies of the final report are available from:

North Dakota Research Coordinating Unit
State Board for Vocational Education
State Office Building
900 East Boulevard
Bismarck, North Dakota 58501

Donald Eshelby, Director
Research Coordinating Unit

CONTENTS

	Page
PREFACE	ii
LIST OF TABLES	iv
Chapter	
I. NATURE OF THE PROBLEM	1
II. RELATED RESEARCH AND LITERATURE	2
Sex Differences	2
Sex-Role Stereotypes	2
Sex Stereotyping and Discrimination in Vocational Education	5
III. PROCEDURES	8
Hypotheses	8
Instrumentation	9
Subjects	9
Data Collection	10
Data Analysis	11
IV. RESULTS	12
Hypothesis I	12
Hypothesis II	17
Hypothesis III	18
Hypothesis IV	19
Hypothesis V	19
Hypothesis VI	20
V. DISCUSSION	21
VI. SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS	26
Conclusions	27
Recommendations	28
REFERENCES	29
APPENDICES	33
A. Bem Sex-Role Inventory	34
B. Letter to Subjects Sociciting Their Participation in Study	41
C. Reminder Postal Card to Subjects	43
D. Reminder Letter to Subjects	45

LIST OF TABLES

Table		Page
1.	Population, Sample, and Sub-Sample Groups	10
2.	Sex-Role Perceptions of Males, Females, and Self by Male Subjects and Female Subjects	12
3.	Bem's Sex Type Classification Using the Androgyny (t ratio) Score	13
4.	Sex-Role Perceptions of Males and Females by Teachers of Various Program Area Specialties	13
5.	Sex-Role Perceptions of Self by Male and Female Vocational Teachers of Various Program Area Specialties	14
6.	Sex-Role Perceptions of Males and Females by Vocational Teachers, Counselors, and Administrators	15
7.	Sex-Role Perceptions of Self by Male and Female Vocational Teachers, Counselors, and Administrators	16
8.	Sex-Role Perceptions of Males and Females by Subjects Employed at Secondary and Post-Secondary Levels	16
9.	Sex-Role Perceptions of Self by Male and Female Subjects Employed at Secondary and Post-Secondary Levels	17
10.	Female Subjects' Sex-Role Perceptions of Self, Other Females, and Males	18
11.	Male Subjects' Sex-Role Perceptions of Self, Other Males, and Females	18
12.	Magnitude of Difference between Male and Female Sex-Roles as Perceived by Masculine Typed, Feminine Typed, and Androgynous Typed Subjects	19
13.	Masculinity Ratings of Androgynous Typed Males and Masculine Typed Male Subjects	20
14.	Femininity Ratings of Feminine Typed Female and Androgynous Typed Female Subjects	20
15.	Sex-Role Classifications of Subjects from Selected Research Using the Bem Sex-Role Inventory	23

CHAPTER I

NATURE OF THE PROBLEM

This study was designed as a means of addressing the issues of sex discrimination and sex-role stereotyping in vocational education in North Dakota through the assessment of the sex-role perceptions of vocational educators. The importance of these issues has been reflected in the Title IX legislation which prohibits educational discrimination based on sex and in the Congressional hearing on Sex Discrimination and Sex Stereotyping in Vocational Education held in 1975 by the Subcommittee on Elementary, Secondary, and Vocational Education of the Committee on Education and Labor of the House of Representatives.

The study was planned in response to the following issues and concerns identified in the Congressional hearings and related research and literature. First, sex stereotyping and discrimination (sexism) do in fact exist and are an integral part of our culture, society, and institutions. These limiting perceptions of male-female roles severely restrict individual development and aspirations resulting in an unnecessary waste of human potential in all areas of life. Public educational institutions charged with the two tasks of preparing individuals intellectually, socially, and economically for successful participation in society and of facilitating optimum individual development have been accused of both reinforcing and perpetuating sex-role stereotyping and sexism. Vocational education as a part of the educational system and the larger economic society has been challenged to examine their assumptions and practices to see to what extent sex stereotyping and discrimination are limiting students' personal and vocational options. Evidence from the congressional hearings indicated that sex discrimination was found to exist in restrictive student enrollment practices, in the staffing patterns at both the instructional and administrative level, and in specific instructional practices. Vocational educators were urged to formulate and implement specific plans to correct the identified inequities. A factor cited as being crucial to the elimination of sex discrimination was the stereotyped sex-role perceptions held by vocational educators. These perceptions form a body of assumptions which unavoidably affect all aspects of students' educational experiences. The lack of empirical data on which to base the planning and implementing of corrective measures and a lack of adequate funding in this area were also presented as important impediments to addressing these issues effectively.

Sex discrimination in admission procedures and requirements, counseling practices, promotional and teaching materials, and curriculums can and are being changed by legal means. However, the existence of pervasive sex-stereotyped attitudes will continue to constrict the vocational possibilities and aspirations of women and men and to a great extent nullify advances at the procedural and administrative level unless specific steps are taken to change these attitudes. Vocational educators need first to be aware of and confront their sex-role perceptions. Awareness of the problem is a necessary first step to its solutions. Knowledge of the nature of these perceptions is also a prerequisite to planning a corrective program.

CHAPTER II

RELATED RESEARCH AND LITERATURE

The research literature on sex-roles was examined. A selection of the most relevant literature is reported in the following categories: sex differences, sex-role stereotypes, and sex stereotyping and discrimination in vocational education.

Sex Differences

Males and females differ biologically, and these differences appear to be reflected behaviorally. Numerous studies have provided evidence concerning differences between the sexes in the way they think (Kagan & Moss, 1962; Maccoby, 1966, 1972), experience emotions (Cosentino & Heilburn, 1964; Gall, 1969), and aspire (Horner, 1969; Turner, 1964). Maccoby (1966, 1972) examined evidence documenting the nature of sex differences and concluded that cross-sex typing or the sharing of traits characteristic of the opposite sex was associated with higher scores in analytic thinking, creativity, and high general intelligence, indicating the negative effects of sex stereotyping upon these aspects of individuals' development. Messick (1972) summarizing research on sex differences, observed that individual differences within each sex are far greater than average differences between the sexes. He concluded that concern should be with measures of individual human differences not sex differences, a position shared by Bem (1975) and Broverman, Vogel, Broverman, Clarkson, & Rosenkrantz (1972).

Sex-role Stereotypes

Sex-role stereotypes or sex-role standards are the sum of socially designated behaviors that differentiate between men and women (Broverman, et al., 1972). The existence of sex stereotypes is well established (McKee & Sherriffs, 1957; Rosenkrantz, Bee, Vogel, Broverman, & Broverman, 1968). Despite the observed fluidity of sex-role definitions in the past decade as compared to previous decades, findings by Broverman, et al., (1972) and Rosenkrantz, et al., (1968) confirm the continued existence of pervasive and persistent sex-role stereotypes.

A series of research studies conducted by a group of psychologists has provided valuable data concerning the content and consequences of sex stereotyping (Broverman, et al., 1972; Broverman, Broverman, Clarkson, Rosenkrantz, Vogel, 1970; Clarkson, Vogel, Broverman, Broverman, & Rosenkrantz, 1970; Rosenkrantz, et al., 1968; Vogel, Broverman, Broverman Clarkson, & Rosenkrantz, 1970). Their research has led to the following conclusions.

1. A strong consensus was found between men and women concerning the differentiating characteristics for males and females. The masculine traits form a

cluster of related behaviors which entail competence, independence, rationality, and assertion. The female-valued traits form a cluster which reflect warmth and expressiveness.

2. Men and masculine characteristics are positively valued more often than characteristics ascribed to women and femininity by both males and females. In addition, the items constituting the competency cluster (masculine traits) have been judged by psychologists and psychiatrists as attributes of mental health.

3. Women incorporate into their self-concepts the negative aspects of femininity (relative incompetence, passivity, dependence) along with the positive feminine attributes (warmth and expressiveness). Men also incorporate both the positive and negative aspects of masculinity into their self-concepts only with different results. "Since more feminine traits are negatively valued than are masculine traits, women tend to have more negative self-concepts than men" (Broverman, et al., 1972, p. 75).

4. Perceptions of sex-roles appear to be subject to variation as a function of an individual's experience. Women with high competency self-concepts have or project having significantly fewer children than those perceiving themselves relatively less competent. Children of working mothers perceived a significantly smaller difference between males and females than did children of full-time homemaker mothers indicating that traditional conceptions of sex-roles are not immutable.

These findings are supported by conclusions from other sex-role research. Femininity in females has been found to be associated with high anxiety (Cosentino & Heilbrun, 1964; Gall, 1969) and fear of success and lower aspirations (Horner, 1969; Lockheed - Katz, 1974; Turner, 1964). Women have higher rates of mental illness which Gove and Tudor (1973) argued may be promoted by the restrictive effects of the stereotyped sex-role of females in society. These research studies demonstrate the continued existence of clearly defined sex-role stereotypes and their powerful influence on women.

Males too are restricted in fully exploring their uniqueness and humanness by sex-role stereotypes. Although the empirical literature on this aspect of sex-roles is limited, males also experience anxiety and

strain when confronted with stereotyped sex-role expectations (Bem, 1975; Komarovsky, 1973). Palme stated,

> It is not just the traditional female role which has disadvantages. Sociologists remind us that, according to statistics, men have a higher criminal record, more stress and illness due to strenuous work, higher suicide rates, and, as a rule, die at an earlier age than women. In school it is the boys who have the greatest adaption problems. Men who are divorced and living alone have greater difficulties managing than do divorced women. The interpretation is that the social pressures on the man to assert himself, to fight his way in life, to be aggressive, and not to show any feelings create contact difficulties and adaption difficulties. (Palme, 1972, p. 241)

Evidence such as this has raised serious questions as to the usefulness and viability of traditional sex-role conceptions which view masculinity and femininity as complementary bipolar qualities. A number of writers and researchers are suggesting that the relationship between sex role and personality be reframed so that the similarities not differences between sexes may be investigated and emphasized (Bardwick, 1974; Bem, 1975; Kaplan and Bean, 1976; Rebecca, Hefner, & Oleshansky, 1976).

The model of androgyny has been proposed as a flexible and humanistic framework from which to examine individual personality. Bem presenting the model of psychological androgyny, suggested that an individual may be both masculine and feminine, both instrumental and expressive depending upon the situational appropriateness of these modalities and that one is able to blend these complementary modalities into a single act (Bem, 1975, p. 2). Bem concluded,

> . . . for fully effective and healthy human functioning, masculinity and femininity must be tempered by the other, and the two must be integrated into a more balanced, a more fully human, a truly androgynous personality. An androgynous personality would thus represent the very best of what masculinity and femininity has come to represent, and the more negative exaggerations of masculinity and femininity would tend to be cancelled out. (Bem, 1975, p. 4)

Bem's research has provided evidence which has verified and validated the model of psychological androgyny. The development and use of the Bem Sex-Role Inventory (BSRI) (Bem, 1974) has provided both an operational definition of androgyny and evidence confirming the existence of androgynous

individuals. In research conducted by Bem using the BSRI with a sample of college students (n = 723), 34% of the males and 27% of the females described themselves as androgynous (Bem, 1974). Further research by Bem using another sample of college students (n = 194) produced results which indicated that 44% of the males and 38% of the females qualified as androgynous (Bem, 1974). The BSRI was used by Johnson (1976) with a sample of rural high school students (n = 137) and found 36% of the male students and 40% of the female students perceived themselves as androgynous. Sorensen's research also using the BSRI but with an urban high school population (sample n = 196) produced results indicating that 25.5% of the males and 27.5% of the females could be identified as androgynous (Sorensen, 1976). Research such as this will provide empirical data which may be used to assess changes in sex role perceptions in the future.

Sex Stereotyping and Discrimination in Vocational Education

The Congressional Hearings on Sex Discrimination and Sex Stereotyping in Vocational Education (1975) have challenged the field to examine its practices to determine if sex-role stereotypes are being reinforced and perpetuated in its programs. Impressive evidence was presented to support the conclusion that vocational education both reflects and reinforces the sex stereotypes and discrimination found in society. Sex discrimination was found to be evidenced in restrictive student enrollment practices in staffing patterns at both instructional and administrative levels, on Policy Boards in vocational education, and in specific instructional practices.

Steele (1974) in summarizing the current status of females in vocational education presented the following evidence to support the conclusion that unequal opportunities exist for women.

> A total of 11,602,144 persons enrolled in Vocational Education programs in 1972, with females accounting for over 55 percent. Secondary education enrolled 63 percent of the total enrollments with two-thirds of them female; post-secondary education enrolled 11 percent with two-fifths female; and adult education enrolled 26 percent with 46 percent female. In wage-earning vocational programs, females comprise 85 percent of the health programs; 76 percent of the office programs, and 86 percent of occupational home economics, three areas which promise relatively low earnings. Of the 128 OE instructional wage-earning programs, girls are in the majority in 15 health programs, six occupational home economics programs, and eight office programs. On the other hand, males are a majority in eight agricultural, 14 distributive

> education programs, 22 technical programs, and 40 programs in trade and industrial. Thus, boys have three times the options of girls in Vocational Education. According to rough estimates, programs in which girls predominate appear to have higher student/teacher ratios. In seven States, while female enrollments averaged 52 percent, expenditures for females, based on per unit costs, averaged only 37 percent of the dollars. (Steele, 1974, p. 78)

Sex stereotyping affects students most directly in the day to day activities and interactions in secondary and post-secondary vocational programs. Specific discriminatory practices are now illegal. A student may enroll in any available vocational program. This has essentially been true for most programs in the past. Dr. Jacob Kaufman (1975) concluded after ten years' involvement in various vocational education projects that doors have been open for females and males to enter non-traditional programs, but, they have not and are not presently going through those doors to any great extent.

Other subtle factors are operating which are restricting students' vocational opportunities as effectively as formal barriers. These are the pervasive societal sex-stereotypes which are reflected in the attitudes of parents, administrators, counselors, teachers, and students. These attitudes and perceptions have acted as a screen preventing educators from being aware of the sources of sex-stereotyping and discrimination in their own behaviors and in the schools' programs, practices and policies. For example, educators until recently have been unaware of the sexist messages communicated in curricular and vocational guidance materials. Not only do they reflect traditional sex-stereotypes but they often exagerate them (Graebner, 1972; National Institute of Education, 1974; Saario, Jacklin, & Tittle, 1973; Weis, 1975).

Research has shown that teachers', counselors', and administrators' attitudes and values are a significant influence upon students. (Leacock, 1969; Minuchin, Biber, Shapiro, & Zimiles, 1969; Rosenthal & Jacobson, 1968). Expectations and attitudes concerning appropriate sex-role behavior are conveyed directly through the reinforcement or non-reinforcement of sex-stereotyped behaviors (Lee and Kedar, 1974). Differing expectations are held for male and female students which influence the intellectual, social, and emotional characteristics of students (Sadker & Sadker, 1974; Steele, 1974).

Traditional stereotyped sex perceptions are expressed in formal and informal counseling practices. The Office of Civil Rights in examining the administration of 11 area vocational schools in five states identified counseling by both teachers and counselors as a significant source of

discrimination (Holmes, 1975). The counseling of students into programs which fit traditional sex-role vocational expectations and the absence of counseling to help students evaluate their perceptions of changing sex-roles in relation to widened curricular and vocational options have been frequently cited as further evidence of practices which lead to unequal vocational opportunities (Kaufman, 1975; Parrott, 1975; Pierce, 1975; Roby, 1975; Steele, 1975; Steiger, 1975).

In both clear and subtle ways teachers exert overt and covert pressure upon those who depart from the traditionally accepted sex-role vocational expectations. These students are often "hassled" by both teachers and their peers. In addition, in many cases, the direct and indirect message is conveyed that females need not and should not have serious career aspirations (Kaufman, 1975; Parrott, 1975; Roby, 1975; Steele, 1975; Steiger, 1975). The need for specific plans and programs to overcome the constraints of sex-stereotyped attitudes has been identified as a necessary step if the goal of open and equal vocational education opportunities for all regardless of sex is to become a reality (Kaufman, 1975; Steele, 1975; Steiger, 1975).

This study was planned to address the issues of sexism and sex-role stereotyping in North Dakota Vocational Education. The following overall objectives were selected:

> To help free human personality from the restrictions of sex-role stereotyping.
>
> To explore possible sources of sex-role stereotyping and sex discrimination in North Dakota vocational education.

The specific research project objective identified for the study was:

> To determine the nature of the sex-role perceptions of North Dakota vocational educators.

CHAPTER III

PROCEDURES

The model of psychological androgyny was selected as the most appropriate framework from which to determine the sex-role perceptions of North Dakota vocational educators. The following variables were identified:

Secondary school vocational education teachers
Post-secondary school vocational education teachers
Secondary school counselors
Secondary school administrators
Post-secondary school vocational administrators
Male subjects
Female subjects

Subjects' sex-role perceptions of females
Subjects' sex-role perceptions of males
Subjects' sex-role perceptions of self

Hypotheses

The study tested the following six hypotheses:

Hypothesis I

Subjects' sex-role perceptions of self, females, and males will differ according to the subjects' sex, program area specialty, occupational group, and school level at which employed.

Hypothesis II

Female subjects' sex-role perceptions of self will be significantly different from their sex-role perceptions of other females and males.

Hypothesis III

Male subjects' sex-role perceptions of self will be significantly different from their sex-role perceptions of other males and females.

Hypothesis IV

Androgynous subjects will perceive a significantly smaller difference between male and female sex-roles than will masculine typed or feminine typed subjects.

Hypothesis V

Self-masculinity ratings of androgynous typed male subjects and masculine typed male subjects will be similar.

Hypothesis VI

Self-femininity ratings of androgynous typed female subjects and feminine typed female subjects will be similar.

Instrumentation

Sex-role perceptions of the subjects were assessed by means of the Bem Sex-Role Inventory (BSRI) (1974) developed by Sandra L. Bem of Stanford University which provided the data for the testing of the hypotheses. The BSRI consists of twenty masculine personality characteristics, twenty feminine personality characteristics, and twenty neutral characteristics. When taking the BSRI a subject is asked to indicate on a scale from 1 ("Never or almost never true") to 7 ("Always or almost always true") how well each characteristic describes himself, herself, the typical male, or typical female. Using an individual's own sex-role self-concept as an example, the degree of sex-role stereotyping in the person's self-concept is defined as the subject's t-ratio for the difference between the total points assigned to the feminine and masculine attributes, respectively. An androgynous sex-role is represented by the equal endorsement of both masculine and feminine personality characteristics.

Reliability data for the BSRI indicate that it is a satisfactory measuring instrument. The Masculinity scores and Femininity scores are empirically as well as conceptually independent (average $r = -.03$). The t-ratio is internally consistent (average $a = .86$), reliable over a four-week interval (average $r = .93$), and uncorrelated with the tendency to describe oneself in a socially desirable direction (average $r = -.06$). Normative data for the BSRI are based on data from its administration to over 2000 undergraduates from a university and a community-college (Bem, 1974). A copy of the instrument may be found in the Appendix.

Subjects

Secondary and post-secondary school vocational teachers, secondary school counselors, secondary school administrators and post-secondary school vocational administrators were the subjects of this study. A stratified random sample was drawn from the population of 1860. A minimum of 40 subjects in each sub-sample was determined as necessary to provide adequate numbers of subjects for the statistical analyses of the data. Twenty-five percent or 40 subjects were randomly selected from each sub-sample. The total sample consisted of 517 subjects. Table 1 presents the distribution of the population, sample, and sub-samples.

Table 1

Population, Sample, and Sub-Sample Groups

Sub-Sample Group	Population		Sample	
Teachers				
Agriculture	170		40	
Distributive education	63		42	
Home economics	201		50	
Industrial arts	200		50	
Office	179		43	
Special needs	92		44	
Trade and industry, and health	262		65	
Subtotal		1,167		334
Counselors (general)	164		40	
Subtotal		164		40
Administrators				
Secondary school Principles	256		64	
Superintendents of Schools	258		64	
Local Directors	15		15	
Subtotal		529		143
Total		1,860		517

Data Collection

Subjects were notified by letter and were asked to mark the BSRI three times to indicate their sex-role perceptions of an adult female, an adult male, and themselves. Half of the subjects were instructed to indicate on the instrument their perceptions of the adult male first, followed by the instructions and instrument to give their perceptions of the adult female. The other half of the subjects received the reverse directions and marked their perceptions of the adult female first. The instructions and the inventory to give their perceptions of their own sex-role (self) were always given last so that the self-ratings would be made in the context of adult masculine and feminine sex-roles.

Subjects were provided with an addressed, stamped envelope and asked to mail the BSRI back to the researcher. A follow-up postal card and a letter were sent to those who had not returned the inventory by the date requested. Copies of the letters and postal card may be found in the Appendix. Four hundred and forty-two of the 517 subjects contacted returned the inventory for a 85.5% return. Forty-six inventories were not usable because of incomplete responses. The final sample was composed of 396 subjects or 76.6% of the original sample.

Data Analysis

The BSRI is scored in the following manner. Means are calculated for each subject's ratings of the masculine and feminine adjectives on the BSRI. A subject's Masculinity score is the mean of that subject's ratings of the masculine adjectives; that same subject's Femininity score is the mean of his or her ratings of the feminine adjectives. The subject's Masculinity score is subtracted from his or her's Femininity score. This difference score is then used to calculate the Androgyny (t ratio) score. The greater the absolute value of the Androgyny score the more sex-typed a person is with high positive scores indicating femininity and high negative scores indicating masculinity. The closer the score is to zero, the more androgynous a person is. Suggested cut-off points for classifying subjects in terms of the Androgyny t ratio score are as follows (Bem, 1974):

$t \geq 2.025$	Feminine
$1 < t < 2.025$	Near feminine
$-1 \leq t \leq +1$	Androgynous
$-2\ 025 < t < -1$	Near masculine
$t \leq -2.025$	Masculine

Data from the Bem Sex-Role Inventory were analyzed using analysis of variance. The inventories were computer scored and data analyzed using the Statistical Analysis System (SAS) Version 72, SAS Project, North Carolina State University, Raleigh, North Carolina, and run under OS/MFT/HASP on an IBM 360/50.

CHAPTER IV

RESULTS

Data will be presented for the testing of each of the six hypotheses. The level of significance identified for rejection of the hypotheses was .05.

Hypothesis I

> Subjects' sex-role perceptions of self, females, and males will differ according to the subjects' sex, program area specialty, occupational group, and school level at which employed.

Hypothesis I was partially supported. Differences were found in terms of sex and occupational group.

Male and female subjects' sex-role perceptions of themselves were significantly different ($p < .05$). However, male and female subjects did not vary significantly in their sex-role perceptions of other males or of other females. Table 2 presents a summary of the analysis of variance on the data.

Table 2

Sex-Role Perceptions of Males, Females, and Self by Male Subjects and Female Subjects

Sex	n	Mean A-Score Self*[a]	n	Mean A-Score Males[a]	n	Mean A-Score Females[a]
Males	296	-1.846 (nm)	297	-3.090 (m)	296	2.300 (f)
Females	97	0.380 (a)	96	-3.342 (m)	97	1.947 (nf)

[a]Letters in parentheses indicate sex type classification using Bem's suggested cut-off points. (See Table 3)

*$p < .05$

Using the cut off points suggested by Bem (1974) given in Table 3, it may be noted that both males and females perceive males as masculine sex-typed. Males perceive females as feminine sex-typed, and females see other females as near feminine. Females as a group described themselves as androgynous while males described themselves as near masculine.

Table 3

Bem's Sex Type Classification Using
the Androgyny (t ratio) Score

Sex type classification	Androgyny (t ratio) Score cut-off points
Feminine (f)	$t \geq 2.025$
Near feminine (nf)	$1 < t < 2.025$
Androgynous (a)	$-1 \leq t \leq +1$
Near masculine (nm)	$-2.025 < t < -1$
Masculine (m)	$t \leq -2.025$

(Bem, 1974, p. 161)

There were no significant differences among the sex-role perceptions of males and females by vocational teachers with differing program area specialties. An analysis of the data presented in Table 4 indicated that teachers of all subject area specialties view sex-roles in a highly consistent manner. Males were viewed as masculine by all seven groups and females as feminine typed by five groups and near-feminine by two groups.

Table 4

Sex-Role Perceptions of Males and Females by
Teachers of Various Program Area Specialties

Program area specialty	n	Mean A-Score Males[a]	n	Mean A-Score Females[a]
Agriculture	37	-3.146 (m)	37	2.625 (f)
Distributive education	22	-3.012 (m)	22	2.466 (f)
Home economics	54	-3.492 (m)	54	2.038 (f)
Industrial arts	36	-3.011 (m)	36	2.155 (f)
Office	25	-3.349 (m)	25	2.247 (f)
Special needs	18	-3.816 (m)	18	1.475 (nf)
Trades and industry, and health	53	-2.897 (m)	53	2.001 (nf)

[a]Letters in parenthesis indicate sex type (Bem, 1974). (See Table 3)

Because analysis of data of male and female subjects' sex-role perceptions of self produced significant differences (Table 2), subsequent analyses of subjects' sex-role perceptions of self were divided into separate analyses by sex. The self report of females was therefore compared and the self report of males was compared.

Table 5 presents the results of the analysis of variance of the data. There was no interaction among any of the variables indicating no significant differences among the sex-role perceptions of self by male teachers of the seven subject areas and no significant differences among the female teachers' sex-role perceptions of self.

Table 5

Sex-Role Perceptions of Self by Male and Female Vocational Teachers of Various Program Area Specialties

Program Area Specialty	n	Mean A-Score Self[a]
Agriculture		
Males	35	-2.297 (m)
Females	1	-2.768 (m)
Distributive education		
Males	18	-1.678 (nm)
Females	3	-1.084 (nm)
Home economics		
Males	0	
Females	53	0.408 (a)
Industrial arts		
Males	36	-1.653 (nm)
Females	0	
Office		
Males	18	-1.306 (nm)
Females	8	0.692 (a)
Special needs		
Males	11	-0.926 (a)
Females	7	-0.265 (a)
Trades and industry, and health		
Males	42	-1.826 (nm)
Females	11	0.496 (a)

[a]Letters in parenthesis indicate sex type (Bem, 1974). (See Table 3)

Sex-role perceptions of males and females by the occupational groups of teachers, counselors, and administrators were not found to be significantly different (Table 6). However, the teachers, counselors, and administrators did differ significantly in their perceptions of their own sex roles (Table 7). Male counselors differed from male teachers and male administrators in their sex-role perceptions of self. Counselors described themselves as less sex-typed than the other two groups. Sex-role perceptions of self by female teachers and counselors, and female counselors and administrators also differed significantly although not in the same direction as males. Female counselors' Androgyny scores were significantly higher than those of female teachers and administrators indicating a more sex-typed self concept. However, the limited size of the samples for both female counselors (n = 7) and female administrators (n = 5) suggest that these results must be interpreted with caution.

Table 6

Sex-Role Perceptions of Males and Females by Vocational Teachers, Counselors, and Administrators

Occupational Group	n	Mean A-Score Males[a]	n	Mean A-Score Females[a]
Teachers	240	-3.187 (m)	240	2.150 (f)
Counselors	29	-3.162 (m)	29	1.982 (nf)
Administrators	127	-3.032 (m)	127	2.377 (f)

[a]Letters in parenthesis indicate sex type (Bem, 1974). (See Table 3)

Table 7

Sex-Role Perceptions of Self by Male and Female Vocational Teachers, Counselors, and Administrators

Occupational Group	n	Mean A-Score Self[a]
Vocational teachers		
Males	154	-1.823* (nm)
Females	85	0.348* (a)
Counselors		
Males	21	-0.734* (a)
Females	7	1.333* (nf)
Administrators		
Males	121	-2.068* (m)
Females	5	-0.410* (a)

[a]Letters in parenthesis indicate sex type (Bem, 1974). (See Table 3)

*$p < .05$

Significant differences found with males: counselors and teachers, counselors and administrators; females: counselors and teachers, counselors and administrators.

The analysis of variance of the data for the sex-role perceptions of males, females, and self by subjects employed at the secondary and post-secondary level produced no interaction. Summary data are presented in Table 8 and Table 9. Male subjects at the secondary and post-secondary level described themselves as near masculine, and female subjects at both levels perceived themselves to be androgynous. Both secondary and post-secondary subjects viewed males as masculine typed while secondary subjects perceived females as feminine typed and post-secondary subjects saw females as near feminine.

Table 8

Sex-Role Perceptions of Males and Females by Subjects Employed at Secondary and Post-Secondary Levels

School Level of Subjects' Employment	n	Mean A-Score Males[a]	n	Mean A-Score Females[a]
Secondary	308	-3.155 (m)	309	2.282 (f)
Post-secondary	78	-3.143 (m)	77	1.961 (nf)

[a]Letters in parenthesis indicate sex type (Bem, 1974). (See Table 3)

Table 9

Sex-Role Perceptions of Self by Male and Female Subjects Employed at Secondary and Post-Secondary Levels

School Level of Subjects' Employment	n	Mean A-Score Self[a]
Secondary		
Male	234	-1.914 (nm)
Female	75	0.313 (a)
Post-secondary		
Male	55	-1.657 (nm)
Female	21	0.642 (a)

[a]Letters in parenthesis indicate sex type (Bem, 1974). (See Table 3)

In summary, there were no significant differences in the sex-role perceptions of male and females by any of the sub-samples whose data were examined (by sex, program area specialty, occupational group, and school level at which employed). The analysis of subjects' sex-role perceptions of themselves did indicate differences. Male and female subjects' sex-role perceptions of self were significantly different. Female subjects perceived themselves as being less sex-typed than male subjects. Male counselors perceived themselves as significantly less sex-typed than did male teachers and administrators. Female counselors described themselves as being significantly more sex-typed than did female teachers or female administrators.

Hypothesis II

> Female subjects' sex-role perceptions of self will be significantly different from their sex-role perceptions of other females and males.

Hypothesis II was supported. Analysis of variance of the data resulted in significant differences among the sex-role perceptions of males, females, and self by female subjects (Table 10). Female subjects described themselves as androgynous while describing other females as near feminine and males as masculine. This finding statistically confirms the observation that the Androgyny scores for subjects in the sub-samples examined in Hypothesis I placed themselves in sex-role categories which were consistently less sex-typed than the sex-role categories for other males and other females.

Table 10

Female Subjects' Sex-Role Perceptions
of Self, Other Females, and Males

Subjects	n	Mean A-Score Self[a]	n	Mean A-Score Females[a]	n	Mean A-Score Males[a]
Females	97	.380* (a)	97	1.947* (nf)	96	-3.342* (m)

[a]Letters in parenthesis indicate sex type (Bem, 1974). (See Table 3)

*$p<.05$
Significant differences found with self and females, self and males, and females and males.

Hypothesis III

Male subjects' sex-role perceptions of self will be significantly different from their sex-role perceptions of other males and females.

Hypothesis III was supported. Results of the analysis of variance of the data are presented in Table 11. Male subjects' perceptions of their own sex-role differed significantly from their sex-role perceptions of males and females. Other males and females were described as being significantly more sex-typed than they perceived themselves to be.

Table 11

Male Subjects' Sex-Role Perceptions
of Self, Other Males, and Females

Subjects	n	Mean A-Score Self[a]	n	Mean A-Score Males[a]	n	Mean A-Score Females[a]
Males	296	-1.846* (nm)	297	-3.090* (m)	296	2.300* (f)

[a]Letters in parenthesis indicate sex type (Bem, 1974). (See Table 3)

*$p<.05$
Significant differences found with self and males, self and females, and males and females.

Hypothesis IV

> Androgynous subjects will perceive a significantly smaller difference between male and female sex-roles than will masculine typed or feminine typed subjects.

Hypothesis IV was supported. The magnitude of difference between male and female sex-roles as perceived by subjects was computed by subtracting the mean A-score for males from the mean A-score for females for each group. There was a significant difference between the mean difference scores of androgynous typed subjects and masculine typed subjects, and between androgynous typed subjects and feminine typed subjects. Androgynous typed subjects perceived a significantly smaller difference between males and females than did either the masculine or feminine typed subjects (Table 12).

Table 12

Magnitude of Difference between Male and Female Sex-Roles as Perceived by Masculine Typed, Feminine Typed, and Androgynous Typed Subjects

Subjects	n	Mean Difference Score[a]
Masculine typed	148	6.013*
Feminine typed	22	6.226*
Androgynous typed	119	4.560*

[a]Difference Score equals mean A-score for sex-role perceptions of females minus mean A-score for sex-role perceptions of males.

*$p < .05$

Significant differences were found with masculine typed and androgynous, feminine typed and androgynous.

Hypothesis V

> Self masculinity ratings of androgynous typed male subjects and masculine typed male subjects will be similar.

Hypothesis V was not supported. The masculinity scores from the BSRI for male androgynous typed subjects and male masculine typed subjects were analyzed using Analyses of Variance to determine if they were significantly

different. Masculine typed male subjects' masculinity scores were significantly higher than that of androgynous typed subjects. A summary of the data is presented in Table 13.

Table 13

Masculinity Ratings of Androgynous Typed Male and Masculine Typed Male Subjects

Subjects	n	Mean Masculinity Score
Masculine typed Males	141	5.608*
Androgynous typed Males	78	4.958*

*$p < .05$

Hypothesis VI

Self feminity ratings of androgynous typed female subjects and feminine typed female subjects will be similar.

Hypothesis VI was not supported. Table 14 presents the mean femininity scores from the PSRI for feminine typed female subjects and androgynous typed female subjects. The mean femininity score for feminine typed female subjects was significantly higher than that of androgynous typed female subjects.

Table 14

Femininity Ratings of Feminine Typed Female and Androgynous Typed Female Subjects

Subjects	n	Mean Femininity Score
Feminine typed Females	14	5.439*
Androgynous typed Females	41	4.896*

*$p < .05$

CHAPTER V

DISCUSSION

Vocational teachers, counselors, and administrators in the study sample were highly consistent in their sex-role perceptions of males and females. Analysis of the data indicated that the sex-role perceptions of males and females did not differ between male subjects and female subjects, among vocational teachers of various program area specialties, among the occupational groups (vocational teachers, counselors, and administrators), or among subjects who were employed at the secondary or post-secondary levels. Subjects in all sub-samples perceived males as masculine typed. Females were also viewed primarily as feminine typed although some sub-samples perceived females to be in the near feminine group.

According to Bem (1975), females whose Androgyny (t ratio) scores fall within the feminine range ($t \geq 2.025$, and males whose t ratio fall within the masculine range ($t \leq -2.025$) are viewing their sex-roles in a manner expressive of stereotyped sex-role norms. Thus, the subjects in this study were viewing males and females in a predominantly stereotypic way.

Statistical analyses of the differences among the sex-role perceptions of self, other males, and females by male subjects and the differences among the sex-role perceptions of female subjects for self, other females and males produced evidence that both female and male subjects saw their own sex-roles as being significantly different and less sex-typed than the sex-roles of females and males. Females described themselves as androgynous, but viewed other females as near feminine and males as masculine typed. Males on the other hand saw themselves as being in the near masculine category, but described other males as being masculine typed and females as feminine typed. These results confirm the continued existence of stereotypic sex-role expectations held for men and women today and are consistent with previous findings (e.g., Broverman, et al., 1972; Lunneborg, 1970; McKee & Sherriffs, 1957; Rosenkrantz, et al., 1968).

These results also demonstrate the need for educators to examine their own self sex-role perceptions in the context of or in relation to their perceptions of others. Subjects in this study were asked to mark the BSRI as they would describe themselves, an adult male, and an adult female. The decision to have educators describe adults and not students was based on the premise that a major purpose of public education is to prepare students to assume their adult roles in society. This is particularly true of those involved in vocational education. Vocational programs are specifically planned to provide opportunities for students to develop the understandings and expertise necessary to perform competently in the adult

world of work. Therefore, it was assumed that the perceptions held by educators concerning the sex-roles of adult males and females would be similar to their views of students. These would in turn influence the kinds of vocational programs planned and implemented in schools.

Research has shown that teachers', counselors', and administrators' attitudes, values, and expectations are a significant influence upon students (Leacock, 1969; Lee & Kedar, 1974; Minuchin, Biber, Shapiro, & Zimiles, 1969; Rosenthal & Jacobson, 1968; Sadker & Sadker, 1974; Steele, 1974). Research has also provided evidence that sex-role stereotypes limit students' intellectual, social, and emotional development. Sex stereotypes also restrict students' aspirations and their present and future vocational possibilities (Bem, 1975; Gall, 1969; Horner, 1969; Maccoby, 1966, 1972; Palme, 1972; Sadker & Sadker, 1974; Steele, 1974).

As indicated by the results of the testing of Hypotheses I, II, and III the educators in the study samples described male and female sex-roles in a stereotyped manner. These perceptions could be a decisive influence upon the kinds of educational opportunities that are provided for students in North Dakota. They could also affect the implementation and enforcement of the Title IX legislation.

These results also indicated that subjects' sex-role perceptions of self were significantly different from their sex-role perceptions of others. While the subjects in this study were not viewing themselves as conforming to stereotypic sex-role expectations, it appeared that they were perceiving other persons' sex-roles in a stereotyped manner. Vocational educators need to be made aware of the discrepancy between their perceptions of themselves and those of others. This finding could be further evidence of the force of traditional sex-role norms. Although subjects interpreted themselves as diverging from the restrictions of these norms, they continued to assume that others were following the societal expectations.

Sex-role research is providing evidence which will help to determine a more accurate picture of contemporary sex-roles. Summary data of subjects self reports data from selected research studies using the BSRI (including the present study) are presented in Table 15 arranged in the order of the approximate age of the subjects. The studies by Johnson (1976), Sorensen (1976), and Bem (1974) all used samples from student populations while the present study sample was composed of professional educators. There was a higher percentage of males in the sample of vocational educators who described themselves as masculine than in the other studies presented and the percentage of androgynous males was second from the lowest. This could be related to an assumed age differential or other situational factors such as the vocational educators' professional role.

Table 15

Sex-Role Classifications of Subjects from Selected Research Using the Bem Sex-Role Inventory

Classification	North Central High School (Johnson, 1976)		Fargo South High School (Sorensen, 1976)		Stanford University (Bem, 1974)		Foothill Junior College (Bem, 1974)		North Dakota Vocational Educators (Dittman, 1976)	
	Males (n = 67)	Females (n = 70)	Males (n = 91)	Females (n = 105)	Males (n = 444)	Females (n = 279)	Males (n = 117)	Females (n = 77)	Males (n = 296)	Females (n = 97)
% Feminine	0	16	0	17.5	6	34	9	40	3	14.5
% Near feminine	9	24	3	30.5	5	20	9	8	1	22
% Androgynous	36	40	25.5	27.5	34	27	44	38	26	42
% Near male	33	10	29	15	19	12	17	7	22	14.5
% Masculine	22	10	41.5	9.5	36	8	22	8	48	7

The situation is reversed for the female vocational education sample. The percentage of female subjects who perceived themselves as androgynous was the highest for females of the five studies presented while the percentage of feminine typed subjects in this study was the lowest of the female samples presented. Again, the assumed age difference among the vocational education sample and the student samples could be a factor related to this finding. As these women have assumed professional responsibilities, they have diverged from traditional sex-role expectations. They could also have been influenced by the concerns for female freedom and equality expressed by the various women's movements in recent years. However, this situation could be an expression of a generalized fluidity and flexibility in female sex roles.

The results of the present study provide some support for this position (see Tables 2, 4, 6, 8, 15) and reinforce conclusions from previous research and literature. It appears to be more acceptable for females to integrate masculine valued characteristics into their personalities and vary from the culturally determined stereotyped expectations than for males to incorporate feminine valued characteristics and behaviors (Block, 1976; Greenberg, 1972; Kaplan & Bean, 1976; Udry, 1971).

Sex-role research is also providing evidence which is useful in expanding our concept of androgyny. The finding from this study that androgynous subjects perceived a significantly smaller difference between males and females than did those who were more sex-typed (Hypothesis IV) indicated that androgynous subjects appeared to be viewing themselves and others with greater flexibility in relation to the traditionally accepted societal sex-role norms.

The finding that the masculinity scores of androgynous males and the masculinity scores of masculine typed males differed significantly as did the femininity scores of androgynous and feminine typed females may be evidence of the tempering in androgynous individuals of the exaggerations of masculinity and femininity as hypothesized by Bem (1975). An examination of the mean masculinity scores for both male groups (androgynous: 4.958, masculine: 5.608) in relation to the median masculinity score for the entire study sample (5.150) suggests that androgynous males' scores are close to the sample medium. The mean femininity scores for the androgynous females (4.896) and for the feminine typed females (5.439) were both well above the median femininity score for all subjects (4.667). This suggested that androgynous males and females continue to incorporate into their personalities those traits valued for their respective sexes. Males apparently are not losing their masculinity nor are females losing their femininity as they become androgynous in their sex-roles.

A methological research question was also explored in the study. An answer to the following question was sought:

> Will the mean Androgyny scores for self, males and females vary according to the time the inventory was returned to the researcher?

Subjects were divided into three groups: early responders, middle responders, and late responders. An analysis of variance of these data indicated that there were no significant differences among the sex-role perceptions of self, males, or females in relation to the time the inventory was returned. These results raise questions as to the necessity for securing the late responders in a study such as this and indicates a need for further research in this area.

CHAPTER VI

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

The purpose of this study was to assess the sex-role perceptions of North Dakota vocational educators. It was planned as a means of addressing the issues of sexism and sex-role stereotyping in vocational education in North Dakota. The importance of these issues has been reflected in the Title IX legislation which prohibits educational discrimination based on sex and in the Congressional hearing on Sex Discrimination and Sex Stereotyping in Vocational Education held in 1975 by the Subcommittee on Elementary, Secondary, and Vocational Education of the Committee on Education and Labor of the House of Representatives.

The following conclusions are presented from the literature on sex-roles, sex-role stereotyping, and vocational education. Sex stereotyping and sex discrimination (sexism) do in fact exist and are an integral part of our culture, society, and institutions. These limiting perceptions of male-female roles severely restrict individual development and aspirations resulting in an unnecessary waste of human potential in all areas of life. The model of androgyny has been proposed as a humanistic and flexible framework from which to examine human personality. This model proposes that individuals may incorporate into their personalities and express both masculine and feminine characteristics depending on the situational appropriateness of these behaviors. In this psychological model of personality individuals would be free to develop their own unique qualities and interests freed from the restrictions of rigid sex-role stereotypes. The model also focuses attention on similarities and commonalities shared by persons instead of exaggerating differences.

Vocational education as a part of the educational system and the larger economic society has been accused of perpetuating sex-role stereotyping and sexism in their enrollment practices, in instructional and administrative staffing patterns, and in specific instructional and counseling practices. Vocational educators have been challenged to examine their assumptions and practices to determine to what extent sex stereotyping is limiting students' personal and vocational possibilities. A factor cited as crucial to the elimination of sex discrimination was the stereotyped sex-role perceptions held by vocational educators. These perceptions form a body of assumptions which unavoidably affect all aspects of students' educational experiences.

The study was predicated on the belief that awareness of a problem is a necessary first step to its solution. The study was planned to provide empirical data concerning the sex-role perceptions of vocational educators in North Dakota. A stratified random sample was drawn from the population of vocational education teachers, counselors, and administrators. The final sample was composed of 396 subjects (76.6% of original sample). The subjects were contacted by mail and asked to complete the Bem Sex-Role

Inventory (Bem, 1974). This instrument provided data concerning the sex-role perceptions of themselves, adult males, and adult females.

Conclusions

The following conclusions may be drawn from the data in this study, and are limited to the sample of subjects in the study.

1. Vocational education teachers, counselors, and administrators in the study sample were highly consistent in their sex-role perceptions of males and females. These perceptions did not vary significantly according to the subjects sex, program area specialty, occupational group, or school level at which employed. Subjects in all sub-samples perceived males as masculine typed indicating stereotypic sex-role perceptions of males. Females were described by subjects as feminine typed or near feminine suggesting a predominantly stereotyped view. Male and female subjects' perceptions of their own sex roles were significantly different. Females perceived themselves as being less sex-typed than did male subjects. Female counselors viewed themselves as more sex-typed than did female teachers or female administrators. Male counselors perceived themselves as significantly less sex-typed than did male teachers and administrators.

2. Female subjects' self sex-role perceptions differed significantly from their sex-role perceptions of other females and males. Female subjects described themselves as androgynous while describing other females as near feminine and males as masculine when using the sex-role classification system suggested by Bem (1974). Male subjects viewed themselves as near masculine and at the same time saw other males as masculine typed and females as feminine typed. Therefore both male and female subjects described males and females as being significantly more sex-typed than they perceived themselves to be.

3. Androgynous subjects perceived a significantly smaller difference between males and females than did either masculine typed or feminine typed subjects. Androgynous subjects thus appeared to be viewing themselves and others with greater flexibility in relation to the traditional sex-role expectations.

4. The masculinity ratings of masculine typed male subjects and androgynous typed male subjects were significantly different as were the femininity ratings of feminine typed female subjects and androgynous typed female subjects. This difference may be evidence of the tempering of the exaggerations of masculinity and femininity by androgynous individuals as hypothesized by Bem (1974). An examination of the data indicated however, that androgynous males and females are continuing to incorporate into their personalities those traits valued for their respective sex along with those valued for the other sex.

Recommendations

This study was planned to provide empirical data concerning the sex-role perceptions of vocational educators in North Dakota. Evidence has been presented which has indicated that as a group the educators in the study sample generally perceived the sex-roles of males and females in a stereotypic manner. It was suggested that these perceptions are unavoidably influencing the ways in which these educators are viewing students' present and future possibilities. Stereotyped sex-roles limit students' development and aspirations both directly and indirectly. The existence of sex discrimination in educational institutions has led to the recent Title IX legislation which has made such practices illegal.

However, students will continue to be restricted from exploring their individual personal and vocational goals by the existence of stereotyped sex-role attitudes and expectations. Specific educational programs are needed to overcome these limiting perceptions. It is recommended that such a program be planned for North Dakota vocational educators so that they may have an opportunity to examine their sex-role perceptions of themselves and others in relation to the issues of sexism and sex-role stereotyping in vocational education.

More research is needed in the area of sex-roles to provide an accurate and realistic picture of contemporary sex-roles and to expand the concept of androgyny. Research to determine if vocational education students' sex-role perceptions are similar to or different from the student samples reported by Bem (1974), Johnson (1976), and Sorensen (1976) would be useful to understand present sex-role expectations and issues. Specific action needs to be taken in relation to these issues if open and equal vocational education opportunities are to become a reality for all students.

REFERENCES

Bardwick, J. M. Androgyny and humanistic goals or goodbye, cardboard people. In M. L. McBee and K. A. Blake (Eds.), The American woman: who will she be? Beverly Hills: Glencoe Press, 1974.

Bem, S. L. The measurement of psychological androgyny. Journal of Consulting and Clinical Psychology, 1974, 42 (2), 155-162.

Bem, S. L. Personal communication, October 20, 1975.

Block, J. H. Conceptions of sex role: Some cross-cultural and longitudinal perspectives. In A. Kaplan & J. Bean (Eds.), Beyond sex-role stereotypes--readings toward a psychology of androgyny. Boston: Little, Brown, & Co., 1976.

Broverman, I. K., Broverman, D. M., Clarkson, F. E., Rosenkrantz, P. S., & Vogel, S. R. Sex-role stereotypes and clinical judgements of mental health. Journal of Consulting and Clinical Psychology, 1970, 34 (1), 1-7.

Broverman, I. K., Vogel, S. R., Broverman, D. M., Clarkson, F. E., & Rosenkrantz, P. S. Sex-role stereotypes: A current appraisal Journal of Social Issues, 1972, 28 (2), 59-78.

Clarkson, F. E., Vogel, S. K., Broverman, I. K., Broverman, D. M., & Rosenkrantz, P. S. Family size and sex-role stereotypes. Science, 1970, 167, 390-392.

Congressional Hearings on Sex Discrimination and Sex Stereotyping in Vocational Education, Hearings before the Subcommittee on Elementary, Secondary, and Vocational Education of the Committee on Education and Labor, House of Representatives, Washington, D. C., March 17, April 21, 28, 1975.

Constantinople, A. Masculinity-Femininity: An exception to a famous dictum? Psychological Bulletin, 1973, 80 (5), 389-407.

Cosentino, F. & Heilbrun, A. B., Jr. Anxiety correlates of sex-role identity in college students. Psychological Reports, 1964, 14, 729-730.

Gall, M. D. The relationship between masculinity-femininity and manifest anxiety. Journal of Clinical Psychology, 1969, 25, 294-295.

Goldberg, P. Are women prejudiced against women? Trans-action, 1968, 5, 28-30.

Gove, W. R. & Tudor, J. F. Adult sex roles and mental illness. American Journal of Sociology, 1973, 78 (4), 812-835.

Graebner, D. B. A decade of sexism in readers. The Reading Teacher, 1972, 26 (1), 52-58.

Greenberg, S. B. Attitudes towards increased social, economic and political participation by women as reported by elementary and secondary students. Paper presented at annual meeting of the American Educational Research Association, Chicago, Illinois, April 1972 (ERIC Document Reproduction Service No. ED 061 533)

Holmes, P. E. Testimony. In Hearings before the Subcommittee on Elementary, Secondary, and Vocational Education of the Committee on Education and Labor, House of Representatives, on Sex Discrimination and Sex Stereotyping in Vocational Education, Washington, D. C., March 17, April 21, 28, 1975.

Horner, M. Fail: Bright women. Psychology Today, 1969, 3, 36-38; 62.

Johnson, J. W. Sex-role perceptions of high school students. Unpublished master's thesis, North Dakota State University, 1976.

Kagan, J. & Moss, H. A. Birth to maturity. New York: Wiley, 1962.

Kaplan, A. G., & Bean, J. P. Beyond sex-role stereotypes--readings toward a psychology of androgyny. Boston: Little, Brown & Co., 1976.

Kaufman, J. J. Testimony. In Hearings before the Subcommittee on Elementary, Secondary, and Vocational Education of the Committee on Education and Labor, House of Representatives, on Sex Discrimination and Sex Stereotyping in Vocational Education, Washington, D. C., March 17, April 21, 28, 1975.

Komarovsky, M. Cultural contradictions and sex roles: The masculine case. American Journal of Sociology, 1973, 78 (4), 873-884.

Leacock, E. B. Teaching and learning in city schools. New York: Basic Books, 1969.

Lee, P., & Kedar, G. Sex role and pupil role in early childhood educatic Columbia University, Teachers College, 1974. (ERIC Document Reproduction Service No. ED 100 491)

Lockheed - Katz, M. Female motive to avoid success: A psychological barrier or a response to deviancy? Paper presented at the meeting of the American Educational Research Association, Chicago, April 1974.

Lunneborg, P. W. Stereotypic aspect in masculinity-femininity measurement. Journal of Consulting and Clinical Psychology, 1970, 34 (1), 113-118.

Maccoby, E. E. (Ed.) The development of sex differences. Stanford, Calif.: Stanford University Press, 1966.

Maccoby, E. E. Sex differences in intellectual functioning. In S. Anderson (Ed.), Sex differences and discrimination in education. Worthington, Ohio: Charles Jones Publishing Co., 1972.

McKee, J. P. & Sherriffs, A. C. The differential evaluation of males and females. Journal of Personality, 1957, 25, 356-371.

Messick, S. What kind of difference does sex make? In S. Anderson (Ed.), Sex differences and discrimination in education. Worthington, Ohio: Charles Jones Publishing Co., 1972.

Minuchin, P., Biber, B., Shapiro, E. & Zimiles, H. The psychological impact of school experience. New York: Basic Books, 1969.

National Institute of Education. Guidelines for assessment of sex fairness in career interest inventories. Washington, D. C., 1974. (ERIC Document Reproduction Service No. ED 098 314)

Palme, O. The emancipation of man. Journal of Social Issues. 1972, 28 (2), 237-246.

Parrott, R. Testimony. In Hearings before the Subcommittee on Elementary, Secondary, and Vocational Education of the Committee on Education and Labor, House of Representatives, on Sex Discrimination and Sex Stereotyping in Vocational Education, Washington, D. C., March 17, April 21, 28, 1975.

Pierce, W. F. Testimony. In Hearings before the Subcommittee on Elementary, Secondary, and Vocational Education of the Committee on Education and Labor, House of Representatives, on Sex Discrimination and Sex Stereotyping in Vocational Education, Washington, D. C., March 17, April 21, 28, 1975.

Rebecca, M., Hefner, R., and Oleshansky, B. A model of sex-role transcendence. In A. Kaplan & J. Bean (Eds.), Beyond sex-role stereotypes--readings toward a psychology of androgyny. Boston: Little, Brown, & Co., 1976.

Roby, P. A. Testimony. In Hearings before the Subcommittee on Elementary, Secondary, and Vocational Education of the Committee on Education and Labor, House of Representatives, on Sex Discrimination and Sex Stereotyping in Vocational Education, Washington, D. C., March 17, April 21, 28, 1975.

Rosenkrantz, P., Bee, H., Vogel, S., Broverman, I., & Broverman, D. Sex-role stereotypes and self-concepts in college students. Journal of Consulting and Clinical Psychology, 1968, 32 (3), 287-295.

Rosenthal, R., & Jacobson, L. F. Pygmalion in the classroom: Self-fulfilling prophecies and teacher expectations. New York: Holt, Rinehart & Winston, 1968.

Saario, T. N., Jacklin, C. N., & Tittle, C. K. Sex-role stereotyping in the public schools. Harvard Educational Review, 1973, 43 (3), 386-416.

Sadker, M., & Sadker, D. Sexism in the schools. Education Digest, 1974, 39, 58-61.

Sorensen, B. J. Sex-role perceptions of high school students. Unpublished manuscript, Concordia College, 1976.

Steele, M. Women in vocational education. Project Baseline Supplemental Report. Flagstaff, Arizona: Northern Arizona University, 1974.

Steele, M. Testimony. In Hearings before the Subcommittee on Elementary, Secondary, and Vocational Education of the Committee on Educationaand Labor, House of Representatives, on Sex Discrimination a d Sex Stereotyping in Vocational Education, Washington, D. C., March 17, April 21, 28, 1975.

Steiger, J. M. Testimony. In Hearings before the Subcommittee on Elementary, Secondary, and Vocational Education of the Committee on Education and Labor, House of Representatives, on Sex Discrimination and Sex Stereotyping in Vocational Education, Washington, D. C., March 17, April 21, 28, 1975.

Turner, R. Some aspects of women's ambition. American Journal of Sociology, 1964, 70 (3), 271-285.

Udry, J. R. The social context of marriage. Philadelphia: J. B. Lippincott Co., 1971.

Vogel, S. R., Broverman, I. K., Broverman, D. M., Clarkson, F. E., & Rosenkrantz, P. S. Maternal employment and perception of sex roles among college students. Developmental Psychology, 1970, 3 (3), 384-391.

APPENDICES

APPENDIX A

BEM SEX-ROLE INVENTORY

1 3

Sex: ☐ 1. Male ☐ 2. Female (4)

Level: Check one ☐ 1. Secondary ☐ 2. Post Secondary (5)

Occupation: Only answer categories which apply to you.

☐ 1. Teacher (6)

If teacher answer following

☐ 1. Agriculture
☐ 2. Distributive Education
☐ 3. Home Economics
☐ 4. Industrial Arts
☐ 5. Office
☐ 6. Special Needs
☐ 7. Trades, Industry, and Health
(7)

☐ 1. Counselor (8)

☐ 1. Administrator (9)

If administrator answer following

☐ 1. Local Director
☐ 2. Principal
☐ 3. Superintendent of Schools
(10)

I. We are investigating what people expect other people to be like. We would like you to imagine that you are going to meet someone for the first time, and the only thing you know in advance is that she is an adult female. What would you expect that she will be like? On the following page, you will be shown a large number of personality characteristics. Use these characteristics to describe what you think an adult female is like. Indicate on a scale from 1 to 7 how true each of these characteristics is of an adult female. Please do not leave any characteristics unmarked.

Example: sly

Mark a 1 if it is NEVER OR ALMOST NEVER TRUE that females are sly.

Mark a 2 if it is USUALLY NOT TRUE that females are sly.

Mark a 3 if it is SOMETIMES BUT INFREQUENTLY TRUE that females are sly.

Mark a 4 if it is OCCASIONALLY TRUE that females are sly.

Mark a 5 if it is OFTEN TRUE that females are sly.

Mark a 6 if it is USUALLY TRUE that females are sly.

Mark a 7 if it is ALWAYS OR ALMOST ALWAYS TRUE that females are sly.

Thus, if you feel it is sometimes but infrequently true that females are "sly", never or almost never true that females are "malicious", always or almost always true that females are "irresponsible", and often true that females are "carefree", then you would rate these characteristics as follows:

Sly	3	Irresponsible	7
Malicious	1	Carefree	5

DESCRIBE AN ADULT FEMALE

1	2	3	4	5	6	7
NEVER OR ALMOST NEVER TRUE	USUALLY NOT TRUE	SOMETIMES BUT INFREQUENTLY TRUE	OCCASIONALLY TRUE	OFTEN TRUE	USUALLY TRUE	ALWAYS OR ALMOST ALWAYS TRUE

21	Self reliant	
22	Yielding	
23	Helpful	
24	Defends own beliefs	
25	Cheerful	
26	Moody	
27	Independent	
28	Shy	
29	Conscientious	
30	Athletic	
31	Affectionate	
32	Theatrical	
33	Assertive	
34	Flatterable	
35	Happy	
36	Strong personality	
37	Loyal	
38	Unpredictable	
39	Forceful	
40	Feminine	

41	Reliable	
42	Analytical	
43	Sympathetic	
44	Jealous	
45	Has leadership abilities	
46	Sensitive to the needs of others	
47	Truthful	
48	Willing to take risks	
49	Understanding	
50	Secretive	
51	Makes decisions easily	
52	Compassionate	
53	Sincere	
54	Self-sufficient	
55	Eager to soothe hurt feelings	
56	Conceited	
57	Dominant	
58	Soft-spoken	
59	Likable	
60	Masculine	

61	Warm	
62	Solemn	
63	Willing to take a stand	
64	Tender	
65	Friendly	
66	Aggressive	
67	Gullible	
68	Inefficient	
69	Acts as a leader	
70	Childlike	
71	Adaptable	
72	Individualistic	
73	Does not use harsh language	
74	Unsystematic	
75	Competitive	
76	Loves children	
77	Tactful	
78	Ambitious	
79	Gentle	
80	Conventional	

II. Now we would like you to go through this same list for a second time. Again, imagine that you are going to meet a person for the first time, and the only information you have is that he is an adult male. This time, indicate on a scale from 1 to 7 how true each of these characteristics is of an adult male. Please be sure to mark every item.

1

DESCRIBE AN ADULT MALE

1	2	3	4	5	6	7
NEVER OR ALMOST NEVER TRUE	USUALLY NOT TRUE	SOMETIMES BUT INFREQUENTLY TRUE	OCCASIONALLY TRUE	OFTEN TRUE	USUALLY TRUE	ALWAYS OR ALMOST ALWAYS TRUE

21	Self reliant	
22	Yielding	
23	Helpful	
24	Defends own beliefs	
25	Cheerful	
26	Moody	
27	Independent	
28	Shy	
29	Conscientious	
30	Athletic	
31	Affectionate	
32	Theatrical	
33	Assertive	
34	Flatterable	
35	Happy	
36	Strong personality	
37	Loyal	
38	Unpredictable	
39	Forceful	
40	Feminine	

41	Reliable	
42	Analytical	
43	Sympathetic	
44	Jealous	
45	Has leadership abilities	
46	Sensitive to the needs of others	
47	Truthful	
48	Willing to take risks	
49	Understanding	
50	Secretive	
51	Makes decisions easily	
52	Compassionate	
53	Sincere	
54	Self-sufficient	
55	Eager to soothe hurt feelings	
56	Conceited	
57	Dominant	
58	Soft-spoken	
59	Likable	
60	Masculine	

61	Warm	
62	Solemn	
63	Willing to take a stand	
64	Tender	
65	Friendly	
66	Aggressive	
67	Gullible	
68	Inefficient	
69	Acts as a leader	
70	Childlike	
71	Adaptable	
72	Individualistic	
73	Does not use harsh language	
74	Unsystematic	
75	Competitive	
76	Loves children	
77	Tactful	
78	Ambitious	
79	Gentle	
80	Conventional	

III. Finally, please go through the same list for a third and last time, indicating on a scale from 1 to 7 how true of you these characteristics are. Please do not leave any characteristic unmarked.

DESCRIBE YOURSELF

1	2	3	4	5	6	7
NEVER OR ALMOST NEVER TRUE	USUALLY NOT TRUE	SOMETIMES BUT INFREQUENTLY TRUE	OCCASIONALLY TRUE	OFTEN TRUE	USUALLY TRUE	ALWAYS OR ALMOST ALWAYS TRUE

21	Self reliant	
22	Yielding	
23	Helpful	
24	Defends own beliefs	
25	Cheerful	
26	Moody	
27	Independent	
28	Shy	
29	Conscientious	
30	Athletic	
31	Affectionate	
32	Theatrical	
33	Assertive	
34	Flatterable	
35	Happy	
36	Strong personality	
37	Loyal	
38	Unpredictable	
39	Forceful	
40	Feminine	

41	Reliable	
42	Analytical	
43	Sympathetic	
44	Jealous	
45	Has leadership abilities	
46	Sensitive to the needs of others	
47	Truthful	
48	Willing to take risks	
49	Understanding	
50	Secretive	
51	Makes decisions easily	
52	Compassionate	
53	Sincere	
54	Self-sufficient	
55	Eager to soothe hurt feelings	
56	Conceited	
57	Dominant	
58	Soft-spoken	
59	Likable	
60	Masculine	

61	Warm	
62	Solemn	
63	Willing to take a stand	
64	Tender	
65	Friendly	
66	Aggressive	
67	Gullible	
68	Inefficient	
69	Acts as a leader	
70	Childlike	
71	Adaptable	
72	Individualistic	
73	Does not use harsh language	
74	Unsystematic	
75	Competitive	
76	Loves children	
77	Tactful	
78	Ambitious	
79	Gentle	
80	Conventional	

APPENDIX B

LETTER TO SUBJECTS SOLICITING THEIR PARTICIPATION IN STUDY

STATE BOARD FOR VOCATIONAL EDUCATION

STATE OFFICE BUILDING
900 EAST BOULEVARD AVENUE
BISMARCK, NORTH DAKOTA 58505

(701) 224-3195
DR. DON ESHELBY, Research Coordinator

March 26, 1976

You have been selected to participate in a research study supported by the State Board for Vocational Education. The study will identify the male-female role perceptions of vocational educators and will provide empirical data to be used as a basis for making decisions about programs which will allow students to pursue their vocational interests.

Please respond to the enclosed opinionnaire according to the instructions and return it in the envelope provided by Wednesday, April 7, 1976.

Your reply will be anonymous and will be treated confidentially. The number on the inventory will be used only for the purpose of recording that the response has been received. We will be glad to send you a summary of the study results if requested.

Thank you for your assistance. Your response is essential to insure that all areas of vocational education will have representation in the final results.

Sincerely yours,

Don Eshelby

Donald Eshelby, Director
North Dakota Research
Coordinating Unit
North Dakota State Board for
Vocational Education

Jennette Dittman

Jennette Dittman, Assistant Professor
Department of Home Economics Education
North Dakota State University
Research Project Director

JD:co

Enclosure

APPENDIX C

REMINDER POSTAL CARD TO SUBJECTS

Dear

Just a reminder that we have not received the completed opinionnaire mailed to you a few weeks ago as a part of a N.D. Vocational Education research project. Your input is very important to assure representativeness of the sample. We would greatly appreciate your returning the completed opinionnaire by April 15. If you have mailed the instrument, please disregard this note. Thank you.

Sincerely,

Jennette Dittman

Dr. Jennette Dittman
Research Project Director

APPENDIX D

REMINDER LETTER TO SUBJECTS

STATE BOARD FOR VOCATIONAL EDUCATION

STATE OFFICE BUILDING
900 EAST BOULEVARD AVENUE
BISMARCK, NORTH DAKOTA 58505

(701) 224-3195
DR. DON ESHELBY, Research Coordinator

April 21, 1976

A copy of the enclosed opinionnaire was mailed to you in March as a part of a research study supported by the State Board for Vocational Education. In case the original copy may have been misplaced or the first packet failed to arrive, we are sending a duplicate to you. We know you have a busy schedule, but we would be most grateful if you could find time to complete the opinionnaire. It will take approximately ten to fifteen minutes to complete.

Your response is very important to insure representativeness of the responses, and of course all replies will be anonymous. The number on the opinionnaire is used only to record that the response has been received. We would appreciate your completing the opinionnaire by Friday, April 30, and returning it in the enclosed stamped, self-addressed envelope.

Thank you for your assistance.

Sincerely yours,

Don Eshelby

Donald Eshelby, Director
North Dakota Research
Coordinating Unit
North Dakota State Board for
Vocational Education

Jennette Dittman

Jennette Dittman, Assistant Professor
Department of Home Economics Education
North Dakota State University
Research Project Director

JD:co

Enclosure